

REMARKS

This amendment is submitted in response to Final Office Action dated September 13, 2007. Reconsideration and allowance of the claims is requested. In this Final Office Action, the rejections under 101 and 112 have been withdrawn.

Claims 1-3, 6, 10, 11, 14, 15, 17-24, 26-33, 35, 39, 43 and 44 are rejected under 35 U.S.C. 102 as anticipated by Ambe (US 2002/0009083). Claims 4 and 5 are rejected under 35 U.S.C. 103 as unpatentable over Ambe in view of Kato (US 6,649,999). Claims 7, 8 and 12 are rejected under 35 U.S.C. 103 as unpatentable over Ambe in view of Doherty (US 6,101,170). Claims 9 and 13 are rejected under 35 U.S.C. 103 as unpatentable over Ambe in view of Tasman (US 7,116,640). Claim 16 is rejected under 35 U.S.C. 103 as unpatentable over Ambe in view of Leung (US 6,781,955). Claim 25 is rejected under 35 U.S.C. 103 as unpatentable over Ambe in view of Iyer (US 7,136,926). These rejections are respectfully traversed.

The present invention, as claimed, provides efficient packet processing during routing by the use of a routing table crosslinked with a state table, and the embedding of an address resolution table index, which is used as an index into a second state table. The use of these crosslinked and cross referenced tables provide for simpler and more efficient processing during routing of packets in a manner which is not taught by the primary reference Ambe relied on by the Examiner. In making his rejection, the Examiner makes certain assumptions or interpretations of Ambe which are inconsistent with later portions of his rejection. For example, claim 1-23 recite a first state table (a routing table or address resolution table) and a second state table that is crosslinked with the first and indexed with an address resolution table index. When a packet is to be processed, the address resolution table index is obtained from the first state table and is stored in a data structure associated with the packet.


By contrast, the Examiner relies on table L3 of Ambe as being the routing table, and the state table as being the default router table. However, it is clear from paragraph [0211] of the reference, at the description at the center of the table, that this default router address is global and static. Therefore, the address taken from the default router table, once an incoming packet is linked to it, is always the same and is static. Thus, the later limitations of claims 1-23, which include obtaining an address resolution table

index, are not disclosed or suggested in the references since this default router table can never be searched by the address resolution table index. In short, the result of the search function described in Ambe at paragraph [0214] is not used to search the default router table, as would need to be the case to meet the limitations of the claims. Therefore, the Examiner's basic premise for rejecting the claims is unsupportable and inconsistent with clear teachings of the Ambe reference.

In response to Applicant's previous argument, the Examiner now argues that the MAC address in the Ambe reference is an index into a lookup table when the packet traverses the next top. The Examiner cites page 11, paragraph [0219] of Ambe as supporting this statement. However, paragraph [0219] contradicts this position. This paragraph clearly states that, when the L3 table is searched (the L3 table being read on the routing table that is crosslinked with the state table), the result of the search is the next hop MAC address. For this reason, the hop MAC address cannot be an address resolution table index. Further, paragraph [0211] of Ambe clearly teaches that, when a packet arrives, the L3 table is searched using the IP address as the key, rather than an address resolution table index. If the relevant address is not found, then the packet is sent to the default router table. This is clearly inconsistent with the approach clearly recited in claims 1-23.

For the foregoing reasons, reconsideration and allowance of claims 1-23 is requested. In order to promote the resolution of this application, the remaining claims have been cancelled subject to the right of the Applicant's attorney to reassert them in a continuation application.

Respectfully submitted,



James A. Sheridan
Registration No. 25,435
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicants